

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

SEP 0 7 2001 TECH CENTER 1600/2900

Hillman et al. In re Application of:

Title:

NOVEL CALCIUM-BINDING PROTEIN

Serial No.:

09/768,840

Filing Date:

January 23, 2001

Examiner:

To Be Assigned

Group Art Unit:

1653

Commissioner for Patents Office of Initial Patent Examination Customer Service Center Washington, D.C. 20231

REQUEST FOR A CORRECTED FILING RECEIPT

Sir:

Attached is a copy of the Official Filing Receipt received from the United States Patent and Trademark Office in the above application for which issuance of a corrected filing receipt is respectfully requested. Please correct the Official Filing Receipt as indicated in red on the attached copy of the Official Filing Receipt. Please change the following information to the Official Filing Receipt to read as: "CONTINUING DATA AS CLAIMED BY APPLICANT---THIS APPLICATION IS A DIV OF 09/206,499 12/07/1998 PAT 6,194,385 WHICH IS A DIV OF 08/828,242 03/21/1997 PAT 5,871,970." Support for this continuing information can be found, for example, on page 1 of the specification filed with the present application, a copy of which accompanies this Request.

Applicants believe that no fee is due with this paper. However, if the Commissioner determines that any fee is necessary, the Commissioner is hereby authorized to charge any

Docket No.: PF-0261-2 DIV

additional fees associated with this communication or credit any overpayment to Deposit

Account No. 09-0108. A duplicate of this communication is enclosed.

Date: July 16, 2001.

Respectfully submitted, INCYTE GENOMICS, INC/

Terence P. Lo, Ph.D.

Limited Recognition (B7 C.F.R. § 10.9(b)) attached

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United States Patent and Trademark Office

COMMISSIONER FOR PATENTS UNITED STATES PATENT AND TRADEMARK OFFICE WASHINGTON, D.C. 20231 www.uspto.gov

CONFIRMATION NO. 2899

Bib Data Sheet

SERIAL NUMBER 09/768,840	FILING DATE 01/23/2001 RULE	CLASS SE XXX	GROU 1642 SR	JP ART UNIT 2899 1685	DC PF	TTORNEY OCKET NO. -0261-2 DIV	
Surya K. Goli, S	TION IS A DIV OF 09/2 V OF 08/828,242 03/31	.; 06,499 12/07/199 /1997 PAT 5,871,	8 PAT 6,194			CH GENTER 1	2001
IF REQUIRED, FORE ** 03/06/2001 Foreign Priority claimed 35 USC 119 (a-d) conditions met	yes no Met af Allorange Arriner's Signature Ir	GRANTED STATE	TRY DRA	WING CLA	TAL AIMS	INDEPENDENT CLAIMS 2	
TITLE Calcium-binding protein FILING FEE RECEIVED 710 FEES: Authority has been given in Paper to charge/credit DEPOSIT ACCOUNT for following:				All Fees 1.16 Fees 1.17 Fees time) 1.18 Fees Other Credit	s (Proc	essing Ext. of	





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APPLICATION NUMBER

FILING DATE

GRP ART UNIT

TC 2800 MAIL ROOM FIL FEE REC'D ATTY.DOCKET.NO DRAWINGS

PF-0261-2

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TOT CLAIMS

IND CLAIMS 2

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CONFIRMATION NO. 2899

FILING RECEIPT

OC000000005915606*

INCYTE GENOMICS, INC. PATENT DEPARTMENT 3160 Porter Drive Palo Alto, CA 94304

Date Mailed: 03/29/2001

Receipt is acknowledged of this nonprovisional Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Customer Service Center. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the PTO processes the reply to the Notice, the PTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

Applicant(s)

Jennifer L. Hillman, Mountain View, CA; Surya K. Goli, Sunnyvale, CA;

Assignment For Published Patent Application

Incyte Pharmaceuticals, Inc.,;

Continuing Data as Claimed by Applicant

THIS APPLICATION IS A DIV OF 09/206,499 12/07/1998 PAT 6,194,385

WHICH IS A DIV OF 80/020, 242 03/21/1997 PAT 5,003,029 *

. (*) Data inconsistent with PTO records.

5,871,970

08/828,242

Foreign Applications

If Required, Foreign Filing License Granted 03/06/2001

Projected Publication Date: 07/05/2001

Non-Publication Request: No

Early Publication Request: No

Title

Calcium-binding protein

· Preliminary Class

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TC 2800 MAIL ROOM

Data entry by : AMARE, TSION

Team : OIPE

Date: 03/29/2001

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Title 35, United States Code, Section 184

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Title 37, Code of Federal Regulations, 5.11 & 5.15

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NOT GRANTED

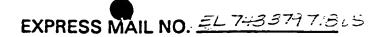
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PLEASE NOTE the following information about the Filing Receipt:

- The articles such as "a," "an" and "the" are not included as the first words in the title of an application. They are considered to be unnecessary to the understanding of the title.
- The words "new." "improved," "improvements in" or "relating to" are not included as first words in the title of an application because a patent application, by nature, is a new idea or improvement.
- The title may be truncated if it consists of more than 600 characters (letters and spaces combined).
- The docket number allows a maximum of 25 characters.
- If your application was submitted under 37 CFR 1.10, your filing date should be the "date in" found on the Express Mail label. If there is a discrepancy, you should submit a request for a corrected Filing Receipi along with a copy of the Express Mail label showing the "date in."
- The title is recorded in sentence case.

Any corrections that may need to be done to your Filing Receipt should be directed to:

Assistant Commissioner for Patents
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CALCIUM-BINDING PROTEIN

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This application is a **DIVISIONAL** application of U.S. application serial number TC 2800 MAIL ROOM 109/206,499, filed December 7, 1998, entitled NOVEL CALCIUM-BINDING PROTEIN, which is a divisional of U.S. application serial number 08/828,242, filed March 31, 1997, which issued on February 16, 1999 as U.S. Patent No. 5,871,970, entitled CALCIUM-BINDING PROTEIN. Both of these applications are hereby expressly incorporated by reference.

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FIELD OF THE INVENTION

This invention relates to nucleic acid and amino acid sequences of a novel calciumbinding protein and to the use of these sequences in the diagnosis, prevention, and treatment of disorders associated with cell proliferation.

BACKGROUND OF THE INVENTION

Calcium plays essential roles in various cell processes including cell metabolism, muscle contraction, molecular secretion and mitogenesis. Calcium is mostly stored in endoplasmic reticulum (ER) in non-muscle cells, and in the sarcoplasmic reticulum (SR) in muscle cells. The regulation of calcium involves a family of homologous, calcium-binding proteins such as calbindins, troponin C, calmodulin, and S-100 proteins. These proteins contain a common structural motif, the EF-hand motif, which consists of two α -helices separated by a loop of 12 to 13 amino acid residues.

Some proteins identified in the lumen of ER, such as BiP, protein disulfide isomerase, calreticulin, and endoplasmin, are also involved in the regulation of calcium. These proteins do not have the EF-hand motif; they are retained in the lumen by a membrane-bound receptor. The receptor retrieves the luminal ER proteins from Golgi apparatus to the ER lumen by recognizing their carboxy-terminal tetrapeptide, Lys-Asp-Glu-Leu (KDEL) or His-Asp-Glu-Leu (HDEL). An exception to these ER proteins is reticulocalbin, a lumenal protein of the ER which possesses both the EF-hand motif and the ER-retention signal, HDEL (Ozawa, M. and Muramatsu, T. (1993) J. Biol. Chem. 268:699-705; Ozawa, M. (1995) J. Biochem. 117: 1113-1119). In fact, the mouse reticulocalbin, a 44 kDa protein, has six repeats of the EF-hand motif. The human reticulocalbin, which shares 95% identity with its mouse homolog,



UNITED STATES PATENT AND TRADEMARK OFFICE VED BEFORE THE OFFICE OF ENROLLMENT AND DISCIPLINE VED

TC 2800 MAIL ROOM

LIMITED RECOGNITION UNDER 37 CFR §10.9(b)

Terrence Lo is hereby given limited recognition under 37 CFR §10.9(b) as an employee of Incyte Pharmaceuticals, Inc. to prepare and prosecute patent applications wherein Incyte Pharmaceuticals, Inc. is the assignee of record of the entire interest in the application filed in the USPTO. This limited recognition shall expire on the date appearing below, or when whichever of the following events first occurs prior to the date appearing below: (i) Terrence Lo ceases to lawfully reside in the United States; (ii) Terrence Lo's employment with Incyte Pharmaceuticals, Inc. ceases or is terminated; or (iii) Terrence Lo ceases to remain or reside in the United States on TN status.

This document constitutes proof of such recognition. The original of this document is on file in the Office of Enrollment and Discipline of the U.S. Patent and Trademark Office.

Expires: November 18, 2001

Harry I. Moatz

Director of Enrollment and Discipline

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